

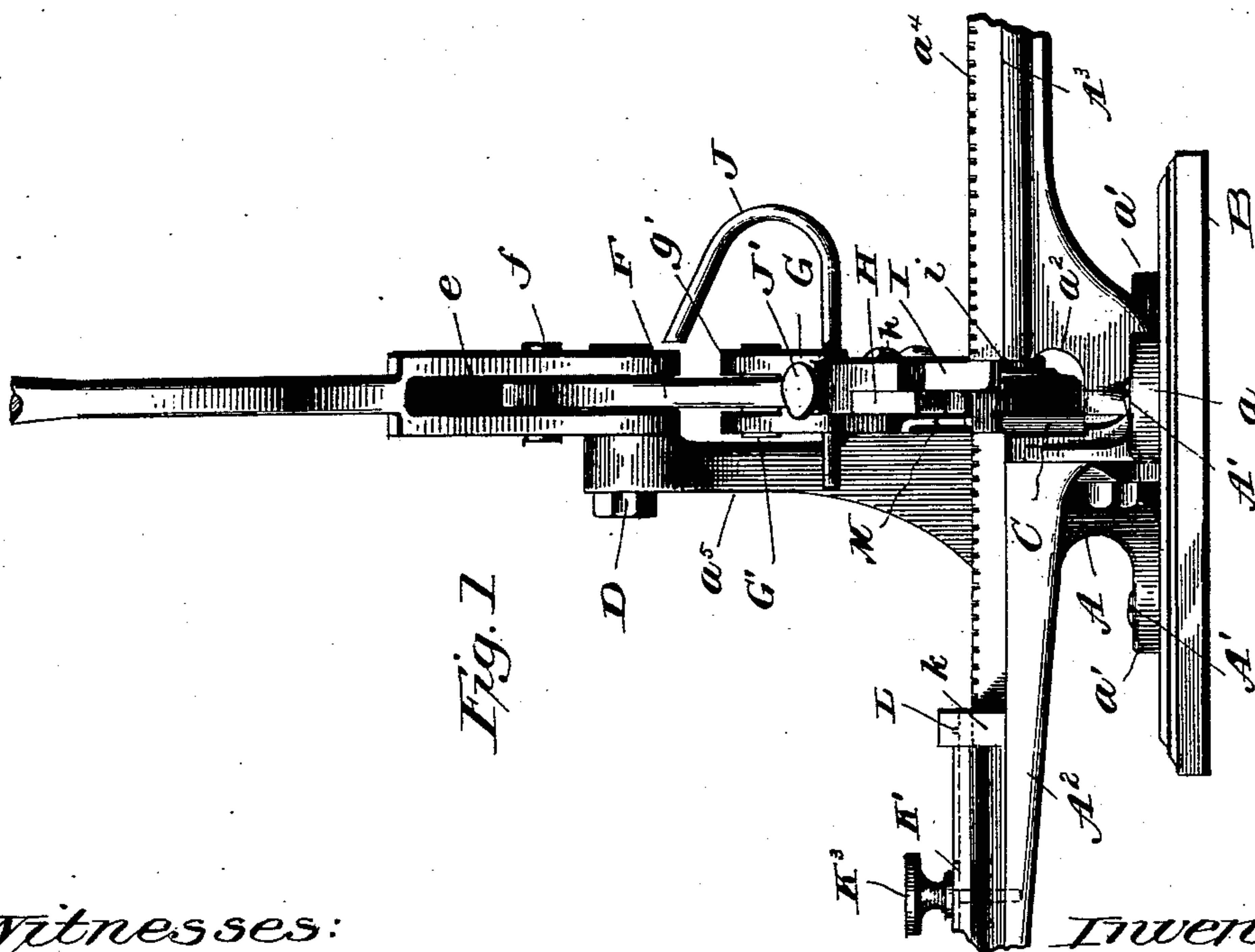
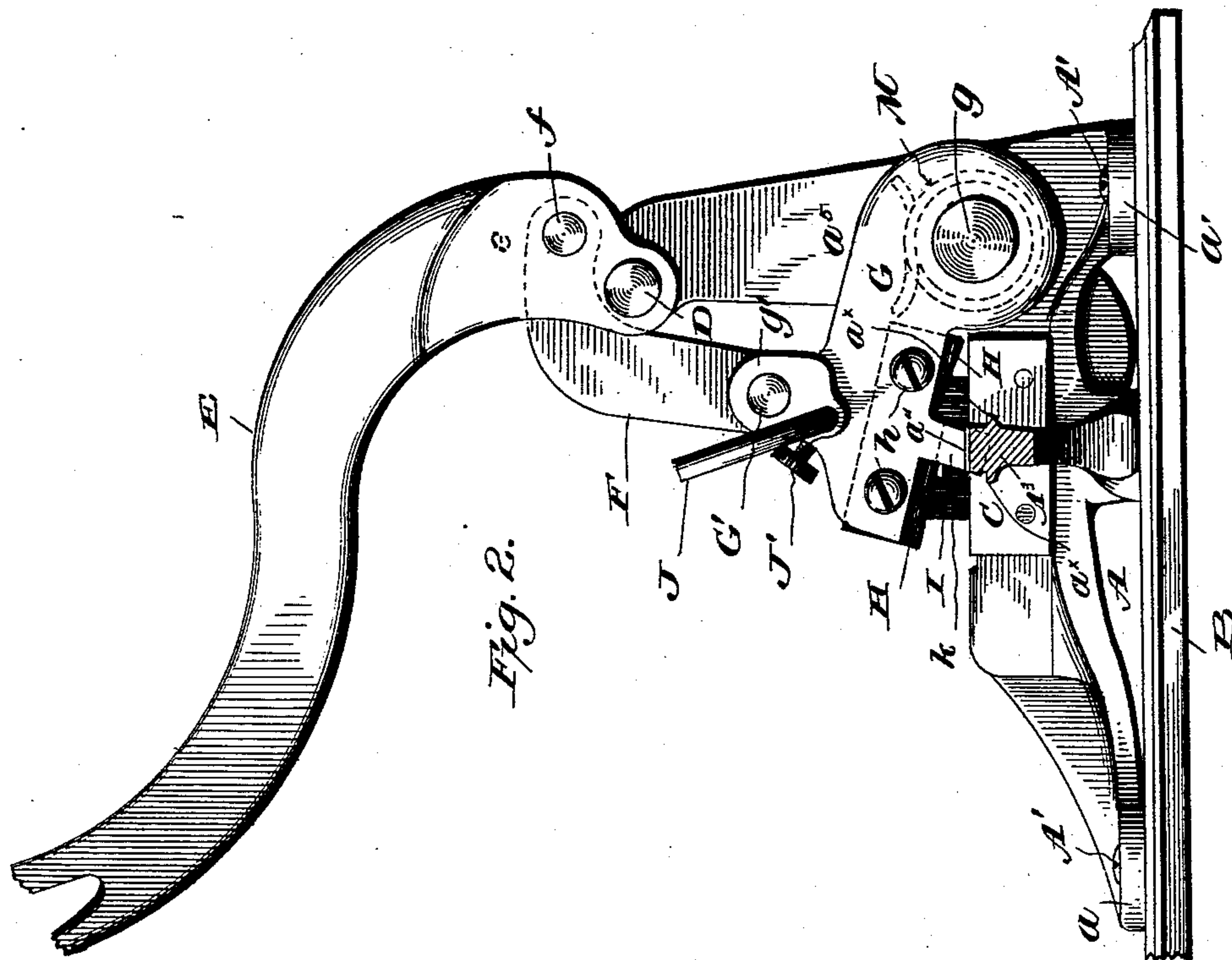
(No Model.)

2 Sheets—Sheet 1.

W. H. GOLDING.
RULE AND LEAD CUTTER.

No. 571,919.

Patented Nov. 24, 1896.



Witnesses:
L. C. Hills.
E. H. Bond

Inventor:
William H. Golding,
By E. B. Stocking
Atty.

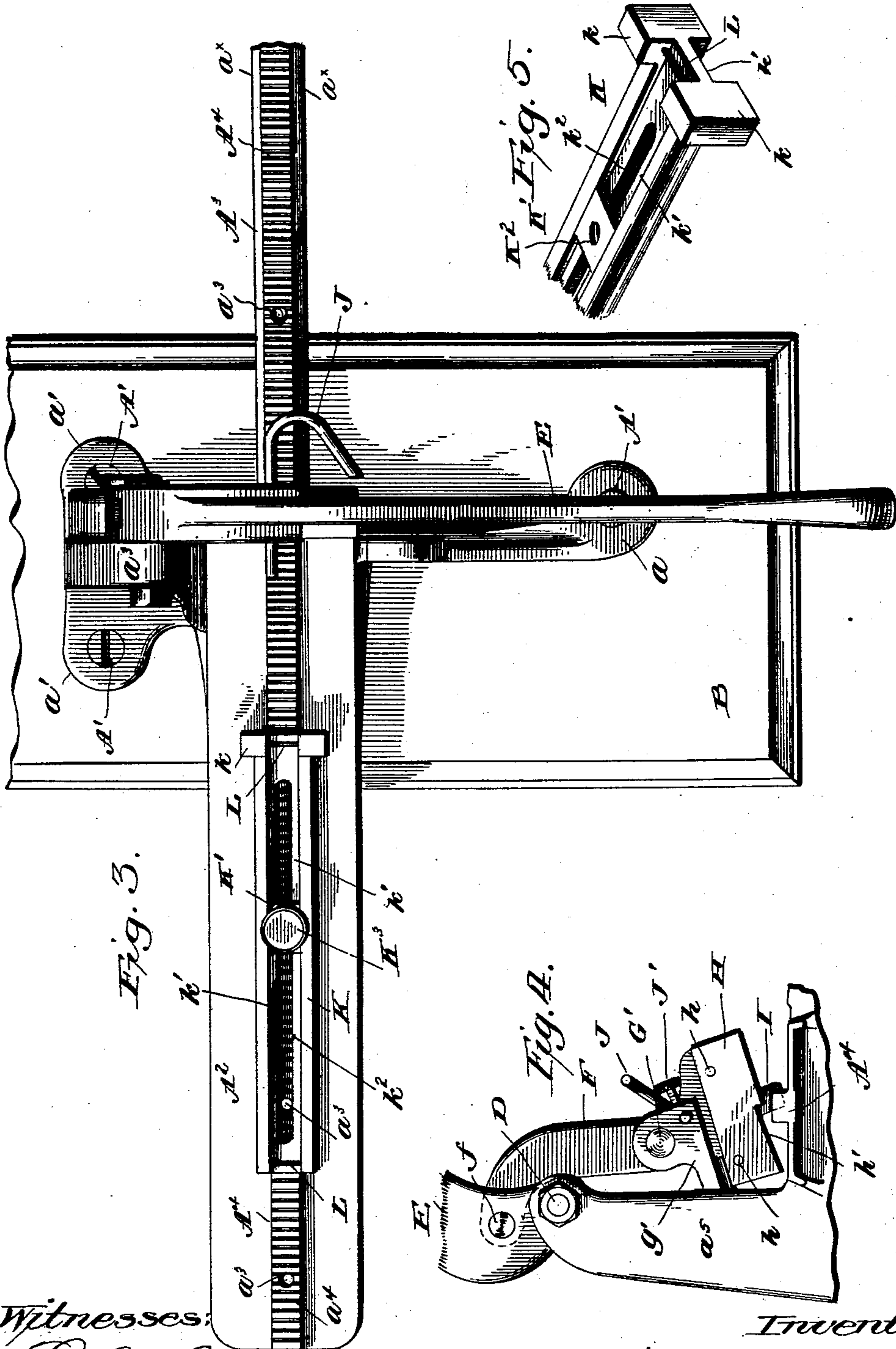
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UNITED STATES PATENT OFFICE.

WILLIAM H. GOLDING, OF BOSTON, MASSACHUSETTS.

RULE AND LEAD CUTTER.

SPECIFICATION forming part of Letters Patent No. 571,919, dated November 24, 1896.

Application filed December 3, 1895. Serial No. 570,944. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. GOLDING, a citizen of the United States, residing at Boston, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Rule and Lead Cutters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in machines for cutting printers' rule and lead, and is designed primarily as an improvement upon the construction disclosed in the Patent No. 206,781, granted to me August 6, 1878.

15 The invention in the present instance consists in the connection of the link which connects the operating-lever with the cutting bar or head above the pivot of the lever, so that the greatest power will be exerted at the commencement of the cut, which is a great advantage in cutting thick brass rule.

20 Another improvement resides in means for holding the upper cutter against springing out.

25 Another important feature is the holder for the front gage, which holder is provided with flanges on each side to support the leads and rule until cut and is designed to hold the gage firmly and allow the stock to drop freely after it has been cut. This front gage is removably supported and is reversible lengthwise for cutting long lengths, and is also constructed for use either side up, one side being adapted for cutting standard pica lengths and the other for odd lengths. The gage-holder is provided with slots or notches to receive strips at the ends of the gage for holding the latter to standard lengths.

30 Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

35 The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

40 Figure 1 is a front elevation of my improved machine. Fig. 2 is a side elevation with the gage-holder in vertical cross-section. Fig. 3 is a top plan. Fig. 4 is a detail in elevation looking at the side opposite that seen in Fig. 2.

Fig. 5 is a detailed perspective of a portion of the gage.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A represents a casting forming the base or foundation of the machine, formed in front with a foot a and at the rear with the diverging feet a' , perforated, as shown, for the passage of the screws or other means A' , employed for securing it in position upon a base-piece, table, or other desired support B. The casting A is formed with the longitudinal extensions $A^2 A^3$, the upper faces of which are formed with the gage plate or holder A^4 , notched, as seen at a^4 , the extension A^2 being of sufficient width to form a support for the leads or rules, as seen best in Fig. 3. At the adjacent ends of the extensions $A^2 A^3$ is a space or opening a^2 , (seen best in Fig. 1,) in which works the movable cutter, while the stationary cutter-plate C is secured to the end of the extension A^2 in any suitable manner, as seen in Figs. 1 and 2. The gage plate or holder A^4 is provided with a plurality of vertical holes a^3 , as indicated in Fig. 3, for the passage of the bolt which holds the gage in its adjusted position.

45 The casting A is formed with a vertical extension or standard a^5 , in which, near its upper end, is held a horizontal shaft or pin D, upon which is pivotally mounted the actuating-lever E, which is bifurcated at its point of pivotal support, as seen at e in Fig. 1, and in the chamber or cavity thus formed is pivoted on a pivot f the link or arm F, which connects said actuating-lever with the cutter-bar, soon to be described. It will be observed by reference to Figs. 1 and 2 that this link is connected with the actuating-lever above the pivot of the latter, the upper end of the link being curved and extended substantially horizontally rearward, whereby the greatest power is exerted at the beginning of the cut, which I have found from practice to be a great advantage, especially when cutting thick rule.

50 G is the cutting bar or head, pivotally mounted, as at g , on the casting A near the base of its standard or upright portion a^5 and formed with lugs or ears g' , in which is supported the pin or bolt G' , which forms the

connection between the link F and the cutting bar or head.

H is the movable cutter, seated in a recess in the cutting bar or head and retained therein in any suitable manner, as by screws *h*, as seen in Fig. 2. This cutter H is provided with two independent cutting edges, as seen best in Fig. 4, one of which is adapted to move in planes parallel to the lower or stationary cutting-plate C when in the act of cutting, while the other by means of its inclined edge *h'* is designed to move in planes at an angle to the lower or stationary cutter for the purpose of making a shearing cut. This cutter is substantially the same as that disclosed in my prior patent hereinbefore referred to. This cutting bar or head is formed with or has firmly affixed thereto a depending arm or lug or portion I, (seen in Figs. 1, 2, and 4,) which is designed to move against and be guided by the vertical wall *i* at the inner end of the extension A³ of the casting A, as seen in said views, so as to prevent springing out of the upper cutter while the same is doing its work. The cutting bar or head is provided with a transverse opening in which is inserted the wire gage J, adapted to be held in any desired position by the set-screw J', bearing thereagainst and held angularly in the said cutting bar or head, as seen in Figs. 1, 2, and 4, for this purpose.

K is the gage proper, consisting of a bar of the desired length having at one end the heads *k* on each side. This bar is grooved longitudinally upon each side, as shown at *k'*, and in this groove is designed to fit and slide a washer K', through an opening K² in which passes a thumb-screw K³, which is designed to engage in one of the openings *a*³ in the gage-plate A⁴ to hold the gage in its adjusted position. This gage is provided at each end upon one side with the transverse strips L, held in the groove thereof at opposite ends of the longitudinal slot *k*² in said gage, these strips being upon one side only of the gage, and when the gage is used with said side down these strips will engage and lock into the slots in the bed and gage-holder, as will be readily understood. The plate A⁴ is designed to work between the flanges formed by the longitudinal grooves in the gage to insure its parallelism with relation to the said plate.

The gage may be employed with the heads *k* either at the inner or outer end of the supporting-bed, according to the length of the rule or lead to be cut. A spring M is coiled about the pivot of the cutter-head and adapted to serve the same as the spring in the prior patent.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

As seen best in Figs. 2 and 3, the front gage-holder is formed with flanges *a*^x on each side, which serve to support the leads and rules until cut.

Importance is attached to the fact that the pivotal connection of the link with the lever be above and to the rear of the pivot of said lever, as by this means the lever will be held or locked in its elevated position when thrown into such position, where it will at all times be in position for use, and all liability of injury to the operator is obviated.

What I claim as new is—

1. The combination with the casting having a longitudinal extension and the fixed cutter, of a movable cutter, a straight depending arm integral with the cutter-bar and extending therefrom in front of its pivot in position to engage the vertical end of one of the extensions of said base to prevent springing out of the movable cutter; substantially as described.

2. A gage for a machine of the class described grooved longitudinally upon each side and formed with heads at one end and transverse strips traversing said grooves upon one side of the gage near each end thereof, substantially as specified.

3. A gage for a machine of the class described grooved longitudinally upon each side and formed with heads at one end and transverse strips traversing said grooves upon one side of the gage near each end thereof, said gage being slotted longitudinally, combined with a washer fitted in said groove and having an opening for the reception of a thumb-screw, substantially as specified.

4. The combination with a gage-plate having notches and openings, of an endwise-reversible invertible gage having a transverse strip at each end to engage said notches, a longitudinal slot, a washer, and a thumb-screw, substantially as specified.

5. The combination with a gage-plate having notches and openings, of an endwise-reversible invertible gage having a longitudinal slot, a washer and a thumb-screw, and upon one side near each end a transverse strip fitted to the notches of the gage-plate, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. GOLDING.

Witnesses:

WILLIAM G. EVERT,
LOUISE V. BARRY.